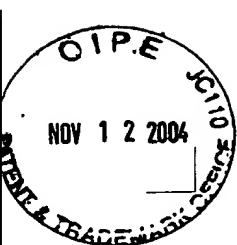


DYNAMIC TOPOLOGY NOTIFICATION EXTENSIONS FOR THE DOMAIN NAME SYSTEM
Inventor: Josph C. Harvel, Application No. 09/224,376
REPLACEMENT SHEET

2/10

NAME	TYPE	CLASS	RDATA
CUSTOMER.COM.	SOA	IN	MNAME=NS1.NSPROVIDER.COM.
CUSTOMER.COM.	NS	IN	NS1.NSPROVIDER.COM.
MAIL.CUSTOMER.COM.	MX	IN	PREFERENCE=0 EXCHANGE=DOPEY.CUSTOMER.COM.
MAIL.CUSTOMER.COM.	MX	IN	PREFERENCE=10 EXCHANGE=SMTP40.MAILPROVIDER.COM.
WWW.CUSTOMER.COM.	CNAME	IN	GRUMPY.CUSTOMER.COM.
NEWS.CUSTOMER.COM.	CNAME	IN	BASHFUL.CUSTOMER.COM.
GW.CUSTOMER.COM.	CNAME	IN	DOPEY.CUSTOMER.COM.
GRUMPY.CUSTOMER.COM.	A	IN	47.0.0.1
SNEEZY.CUSTOMER.COM.	A	IN	47.0.0.2
DOPEY.CUSTOMER.COM.	A	IN	47.0.0.3
BASHFUL.CUSTOMER.COM.	A	IN	47.0.0.4
HAPPY.CUSTOMER.COM.	A	IN	47.0.0.5
HAPPY.CUSTOMER.COM.	A	IN	47.1.0.1
HEWEY.CUSTOMER.COM.	A	IN	47.1.0.2
DEWEY.CUSTOMER.COM.	A	IN	47.1.0.3

FIG. 1A



DYNAMIC TOPOLOGY NOTIFICATION EXTENSIONS FOR THE DOMAIN NAME SYSTEM
Inventor: Joseph C. Harvel, Application No. 09/224,376
REPLACEMENT SHEET

3/10

NAME	TYPE	CLASS	RDATA
CUSTOMER.COM.	DTG_ID	IN	ID=3711 RTSTVALID=FALSE RTST=<UNDEFINED>
GRUMPY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.0.0.1 INACTIVE RESPONSE TYPE=1 TEXT LENGTH=26 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=THE NETWORK IS UNAVAILABLE OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>
SNEEZY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.0.0.2 INACTIVE RESPONSE TYPE=1 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>
DOPEY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.0.0.3 INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>

FIG. 1B - 1



NAME	TYPE	CLASS	RDATA
BASHFUL.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.0.0.4 INACTIVE RESPONSE TYPE=2 TEXT LENGTH=<UNDEFINED> ALTERNATE RDATA LENGTH=4 OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=3600 OPTIONAL ALTERNATE RDATA=128.83.17.101
HAPPY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.0.0.5 INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>
HAPPY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.1.0.1 INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>

FIG. 1B - 2



DYNAMIC TOPOLOGY NOTIFICATION EXTENSIONS FOR THE DOMAIN NAME SYSTEM
Inventor: Joseph C. Harvel, Application No. 09/224,376
REPLACEMENT SHEET

5/10

NAME	TYPE	CLASS	RDATA
HEWEY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH=4 ORIGINAL RDATA=47.1.0.2 INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>
DEWEY.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=A ORIGINAL RDATA LENGTH= ORIGINAL RDATA=47.1.0.3 INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>
MAIL.CUSTOMER.COM.	DTG_INFO	IN	DTG IDENTIFIER=3711 ORIGINAL RR TYPE=MX ORIGINAL RDATA LENGTH=22 ORIGINAL RDATA= PREFERENCE=0 EXCHANGE=DOPEY.CUSTOMER.COM. INACTIVE RESPONSE TYPE=0 TEXT LENGTH=0 ALTERNATE RDATA LENGTH=<UNDEFINED> OPTIONAL TEXT=<UNDEFINED> OPTIONAL ALTERNATE RR TTL=<UNDEFINED> OPTIONAL ALTERNATE RDATA=<UNDEFINED>

FIG. 1B - 3

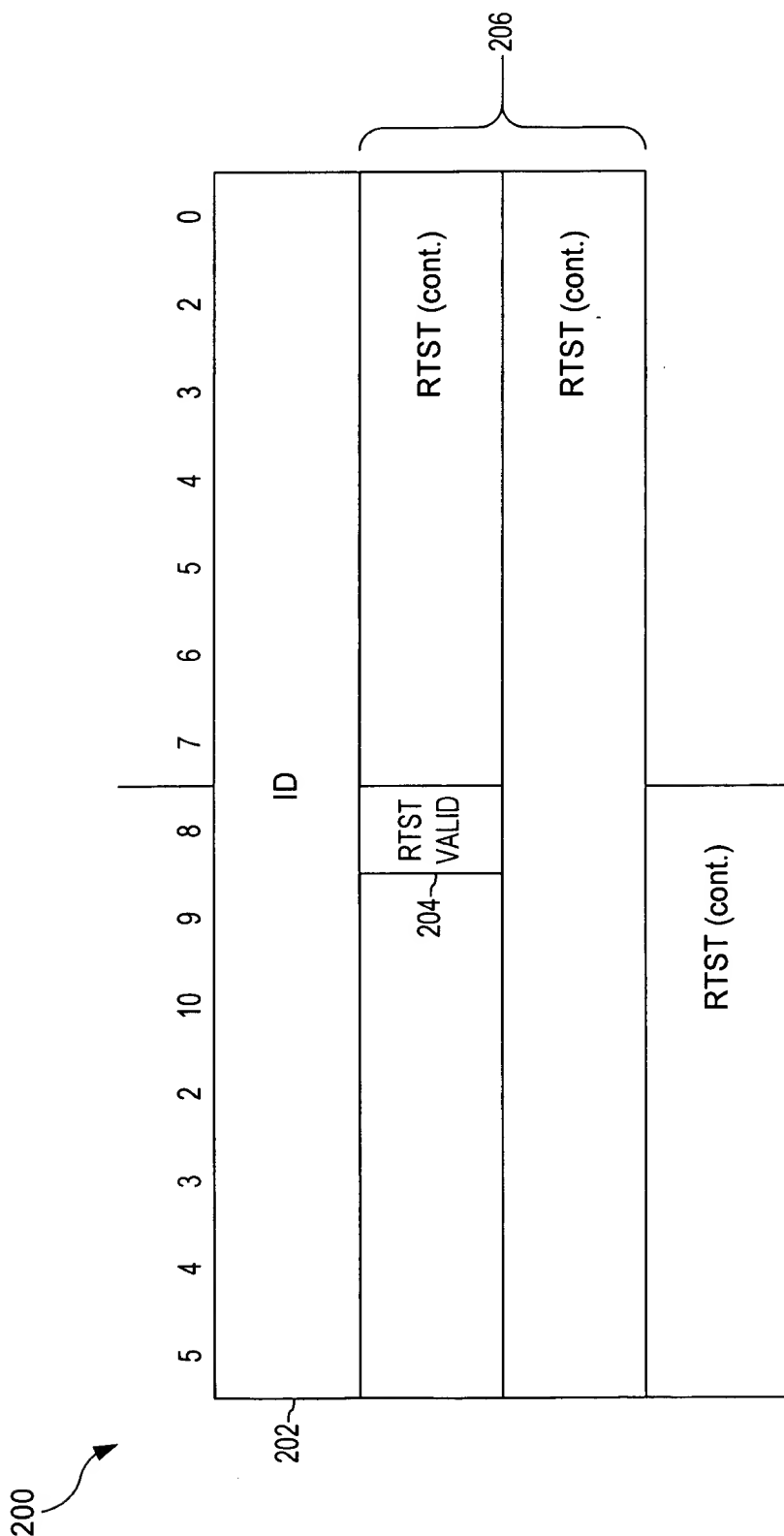


FIG. 2

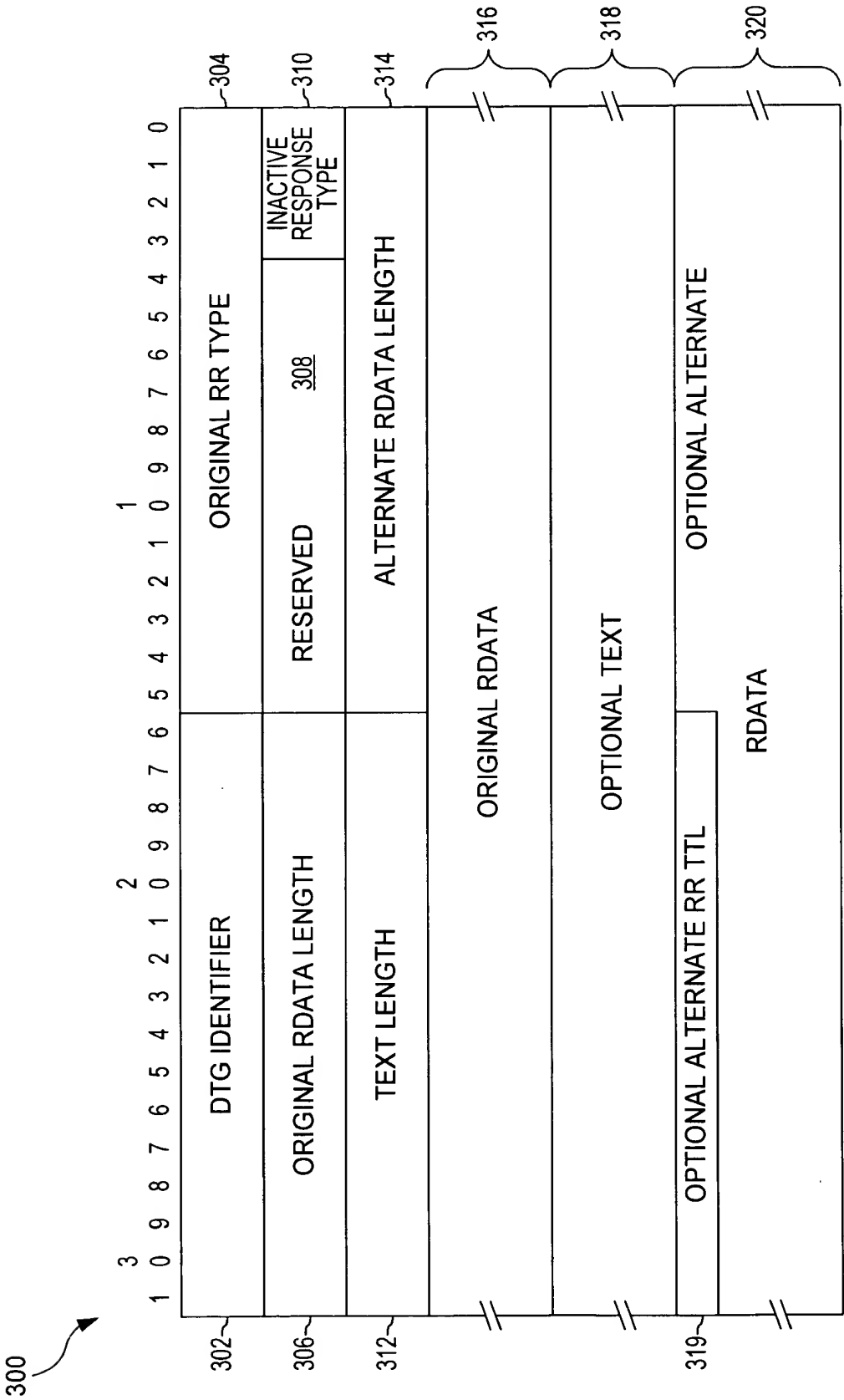


FIG. 3



DYNAMIC TOPOLOGY NOTIFICATION EXTENSIONS FOR THE DOMAIN NAME SYSTEM
Inventor: Josep C. Harvel, Application No. 09/224,376
REPLACEMENT SHEET

8/10

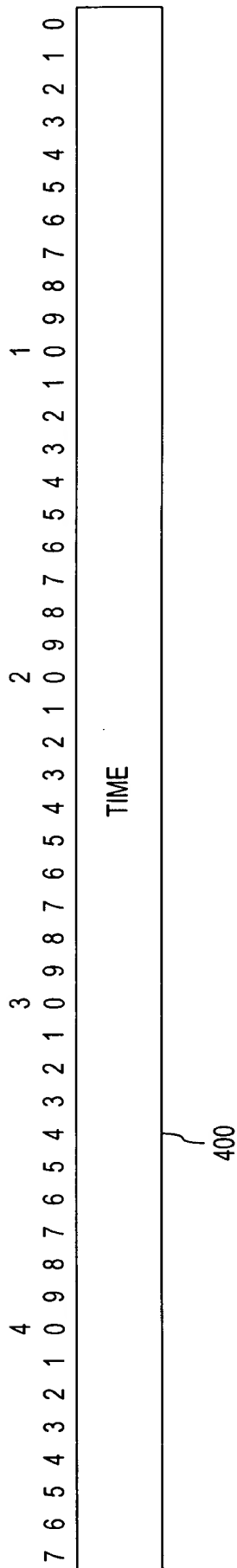


FIG. 4

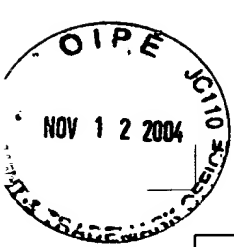
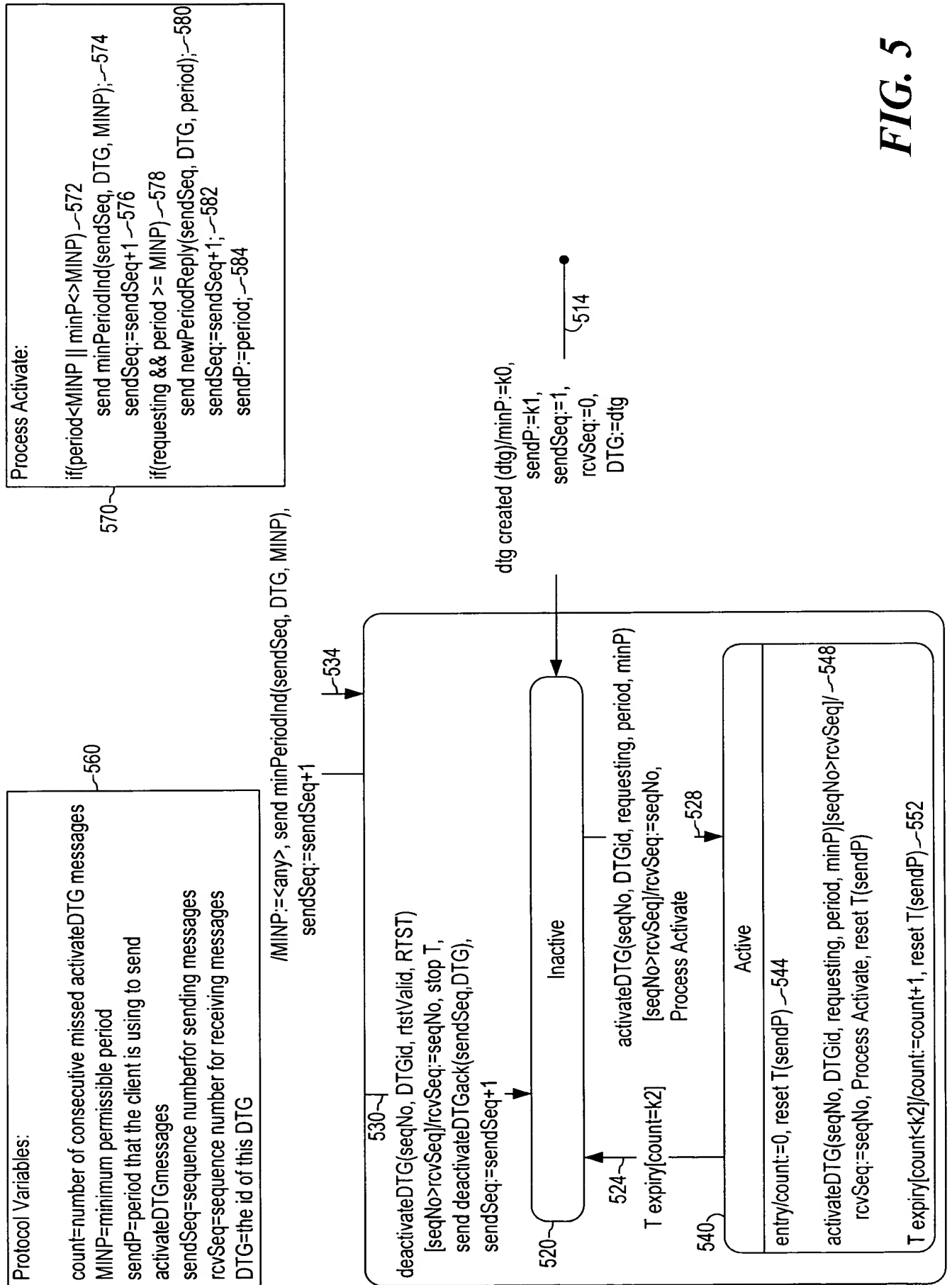
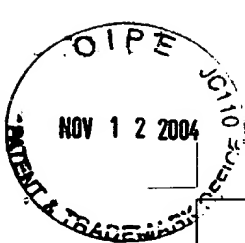


FIG. 5





Protocol Variables:

curP=current period
reqP=requested period
MINP=last reported
minimum period
from server
sendSeq=sequence
number for sending
rcvSeq=sequence
number for receiving
DTG=the id of this DTG

User Primitives:

UPR=user request
for a new period
UDR=user request
to deactivate DTG

FIG. 6

